North Dakota **Grade 8**

FlyBy Math™ Alignment
North Dakota Mathematics Content and Achievement Standards
April 2005

Standard 1: Number and Operation
Students understand and use basic and advanced concepts of number and number systems.

NUMBERS, NUMBER RELATIONSHIPS, AND NUMBER SYSTEMS

Benchmark Expectations	***FlyBy Math*™ Activities**
8.1.2. Solve real-world problems involving ratio, proportion, and percent.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.

Standard 3: Data Analysis, Statistics and Probability
Students use data collection and analysis techniques, statistical methods, and probability to solve problems.

PREDICTIONS, DATA ANALYSIS, AND INFERENCES

Benchmark Expectations	***FlyBy Math*™ Activities**
8.3.7. Make inferences based on analysis of data and interpretation of graphs.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

Standard 4: Measurement
Students use concepts and tools of measurement to describe and quantify the world.

MEASURABLE ATTRIBUTES, MEASUREMENT SYSTEMS AND UNITS

Benchmark Expectations	***FlyBy Math*™ Activities**
8.4.1. Select an appropriate degree of precision when using measurements for calculations.	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

Standard 5: Algebra, Functions and Patterns
Students use algebraic concepts, functions, patterns, and relationships to solve problems.

NUMERIC AND ALGEBRAIC REPRESENTATIONS

Benchmark Expectations	***FlyBy Math*™ Activities**
8.5.2. Use variables, expressions and equations to represent problem situations.	--Use tables, graphs, and equations to solve aircraft conflict problems.

RATES OF CHANGE	
Benchmark Expectations 8.5.6. Solve problems involving rates; i.e., speed equals distance divided by time (miles per hour)	***FlyBy Math*™ Activities** --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.